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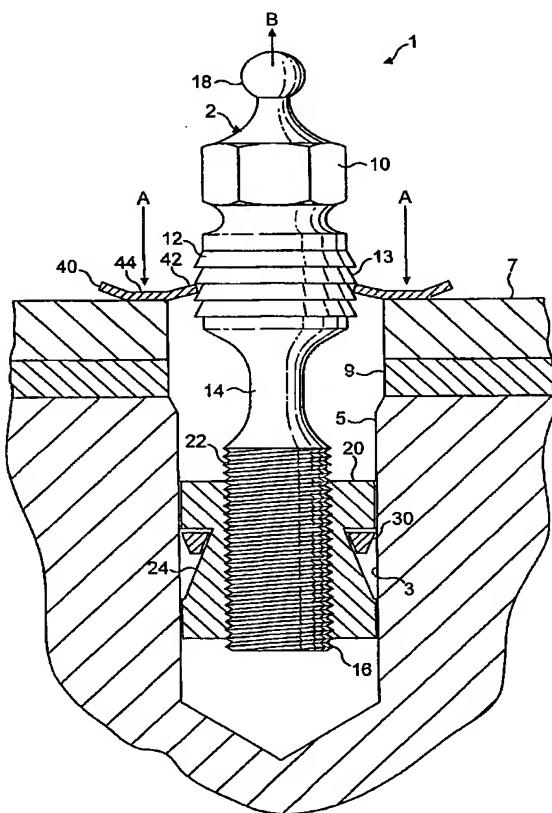
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(54) Title: A FASTENING DEVICE



(57) Abstract: A fastening device (1) comprises a shank (2) having a head (10) at one end, a ribbed portion (12) adjacent to the head portion, a neck portion (14) and a threaded portion (16). The fastening device also comprises a cylindrical retainer (20) whose diameter is substantially equal to that of the bore (3) into which it is to be installed. The retainer (20) affords a central hole whose wall carries a screw thread which is in threaded engagement with the threaded portion (16) of the shank (2). The outer surface of the retainer (20) affords a tapered recess (24). In use, the threaded portion (16) of the shank is engaged within the threaded hole in the retainer (20) which is then placed into a bore in which it is to be secured. Positioned within the space constituted by the recess (24) is an expandable split ring (30). A spring (40) engages the margin of the bore and acts on the ribbed portion (12) of the shank to urge the shank out of the bore. As it moves out of the bore, the tapered surface on the shank defining the recess (24) comes into engagement with the inner surface of the expandable ring (30), the outer surface of which is forced into engagement with the wall of the bore. The shank and retainer are thus jammed in position in the bore.

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